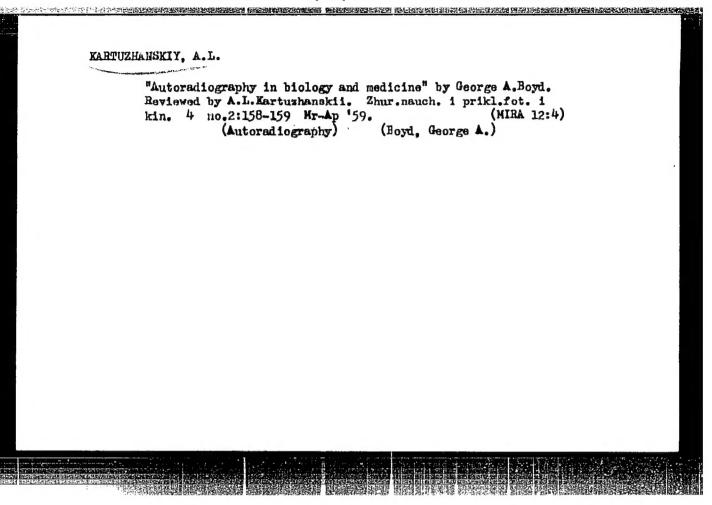
SOV/20-123-5-29/50 The Conservability of a Latent Image and of Sensitivity in Nuclear Photoemulsions Sensitized by Triethanolamine

> during the irradiation(and especially not due to the absorption of the halogen separated out by the radiolysis of AgHal). Beginning with the formation of subcenters, the presence of triethanolamine in the emulsion is not of essential importance and the subsequent variation of the properties of the emulsion is determined by the presence of subcenters in the crystals. The decrease of triethanolamine in alkalinity (by adding acids which do not react with AgHal) diminishes its sensitizing effect. The experiments discussed in the present paper prove the sensitizing and also the stabilizing effect of triethanolamine in complete agreement with the mechanism of its interaction with the crystals of the photoemulsion. There are 3 tables and 7 references, 5 of which are Soviet.

ASSOCIATION: Radiyevyy institut im. V. G. Khlopina Akademii nauk SSSR

(Radium Institute imeni V. G. Khlopin of the Academy of

Sciences, USSR) Card 3/4



21(1), 23(3,5) SOV/77-4-4-13/19

AUTHORS: Kartuzhanskiy, A.L., and Soltitskiy, B.P.

TITLE: Letter to the Editor; The Effect of Not Substitutability at Photographic Activity of 6-Radiation

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1959, Vol 4, Nr 4, pp 301-303 (USSR)

ABSTRACT:

The authors state, that the effect, described by Ray and Stevens \sqrt{Ref} 17, demands a dependency in particular between its value, the limit of its existence on the one hand and the ionizing power of k-particles, the sensitivity of the emulsion on the other hand. The tests were made on electronographic plates, which are sensitive towards / -particles, low sensitive diapositive plates, and on nuclear emulsion type R NIKFI, with the highest sensitivity of all emulsions towards particles. As radiation source isotopes with pure 7. -radiation were used: p32 and c14 in Na₂HPO₄ and

Card 1/2 The results confirmed the existence of the Na₂CO₃.

Letter to the Editor; The Effect of Not Substitutability at Photographic Activity of A-Radiation 507/77-4-4-13/19

effect and the reason for non-substitutability, not depending on the choice of radiation. There are 2 graphs and 4 references, 3 of which are Soviet and 1 English.

ASSOCIATION: Leningradskiy sel'skokhozyaystvennyy institut (Lenin-

grad Agriculture Institute)

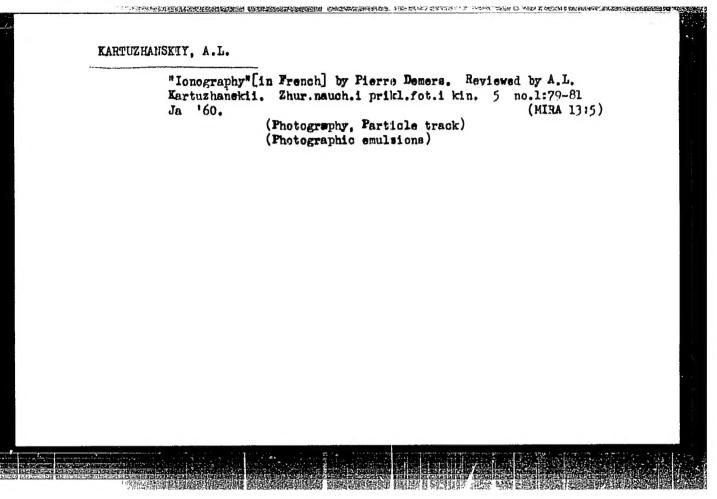
SUBMITTED: April 5, 1959

Card 2/2

KARTUZHANSKIY, A.L.; SHUR, L.I.

Effect of nonreciprocity at long lighting durations for nuclear photographic emulsions sensitized with triethanolamine. Zhur. nauch.i prikl.fot.i kin. 5 no.1:58-60 Ja-F '60. (MIRA 13:5)

1. Leningradskiy institut sovetskoy torgovli imeni F. Engel'sa. (Photographic emulsions) (Photography, Particle track) (Ethanol)



S/077/60/005/003/007/009 E032/E414

AUTHOR:

Kartuzhanskiy, A.L.

TITLE :

Quantitative Characteristics of the Latent Image 10 Formed Under the Action of Ionizing Particles 19

一个性性的主要性性的不同性性的性性,使用是特别的特殊性性的,因此他的问题是特殊,但是是他们传统的时,可以可以,并被他们看到他的原理也是可是**对对方的现象分词**更多

PERIODICAL: Zhurnam nauchnoy i prikladnoy fotografii i kinematografii, 1960, Vol.5, No.3, pp.221-223

TEXT: In an earlier paper by the present author and Soltitskiy (Ref.1) it was found that the reciprocity law breaks down in the case of β -particle induced images. Since it was suspected that this effect is due to regression, an investigation was made of the dependence of this effect on temperature. Three emulsions were exposed using Cl4 and p32 β -sources. They were nuclear emulsion of type HKMMP (NIKFI-R), electron diffraction emulsion, and a diapositive emulsion. The temperature range investigated was 0 to 40°C. The humidity was kept constant and approximately equal to normal room humidity. It was found that Meikler's equation (Ref.2)

Card 1/3 $H = \frac{H_0}{2} (1 + \sqrt{1 + bt})$

S/077/60/005/003/007/009 E032/E414

Quantitative Characteristics of the Latent Image Formed Under the Action of Ionizing Particles

applies in this case and the value of the coefficient $\,b\,$ which appears in this expression is the same as in the case of light. The numerical values of $\,N_O\,$ and $\,U\,$ which enter into the formula for $\,b\,_0\,$ namely

$$b = \frac{40}{N_0^2} e^{-\frac{U}{KT}}$$

are given in the following Table;

Card 2/3

s/077/60/005/003/007/009 E032/E414

Quantitative Characteristics of the Latent Image Formed Under the Action of Ionizing Particles

Emulsion	C14		p32		Light	
	No	U	No	U	N _o	U
Diapositive Electron diffraction	34 ± 4 13 ± 2	0.92±0.01 0.98±0.01	30 ± 4 14 ± 2	0.88 <u>±</u> 0.01 0.95 <u>±</u> 0.01		0.69±0.02
Nuclear type R	7.2±0.8	1.02 <u>+</u> 0.01	8.0±0.8	0.99±0.01		0.75±0.02 0.80±0.02

There are 1 figure, 1 table and 3 Soviet references.

ASSOCIATION: Leningrad Institut sovetskoy torgovli im.F.Engel'sa

(Leningrad Soviet Trade Institute imeni F. Engels)

SUBMITTED: Card 3/3 September 19, 1959

Physical and photographic fundamentals of autoradiography as a quantitative method. Zhur.nauch.i prikl.fot.i kin. 5 no.4: 309-316 Jl-Ag '60. (MIRA 13:8)

\$/020/60/131/01/017/060 Kartuzhanskiy, A. L., Shur, L. I. AUTHORS: B013/B007

CONTRACTOR OF THE STREET PROPERTY AND ASSESSED FOR THE STREET OF THE STREET, ASSESSED TO STREET OF THE STREET,

The Energy of the Activation of the TITLE: Thermal Fading of a Latent Photographic Image

Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 1, pp 64 - 67 PERIODICAL:

(USSR)

The results given in the present paper also contain several ABSTRACT:

data, which were determined by the method developed by P. V. Meyklyar. This method is based on the analysis of curves, which express the impossibility of substituting (of the socalled iso-opaque places) photographic layers within the range of long exposure times. The method in principle permits determination of the number of Ag atoms in the subcenter and the activation energy of an arbitrary group of atoms which is not larger

than a subcenter. The authors first modify and supplement Meyklyar's method to a certain extent. The corresponding formulas are derived step by step and are explicitly written down. The experimental investigation was carried out on a fine-grained silver bromide emulsion, which had not been ripened a second

time. The plates with the emulsion to be investigated were exposed for from 1 to 104 sec (sometimes also 105 sec) through a

Card 1/3

The Energy of the Activation of the Thermal Fading S/020/60/131/01/017/060 of a Latent Photographic Image S/020/60/131/01/017/060

stepped wedge at temperatures of + 40, + 20°, and, in some cases also at 0°, after which they were developed in an Amidol developer according to the two-temperature dry process. The extreme inclination 1/2 (the Schwartzschild exponent p also equals 1/2 and the number n of atoms in the subcenter equals 2) was found only near the blackening threshold (blackening density D<0.1). To the extreme inclination 2/3 (p = 1/3, n = 3) there corresponds D ~ 0.6 - 0.8, and with a sufficiently large D $(\sim 1.5 - 1.8)$ the extreme inclination attains 3/4 (p = 1/4, n = 4). Figure 1 shows the iso-opaque places for the three aforementioned values of D. From table 1 the increase of the activation energy Ui with a decrease of the center consisting of i atoms may distinctly be seen. This increase is apparently slower than linear. The activation energy is approximately equal in all cases in which the Ag-particle lacks a total of one atom for stability. The stability of the center is thus due to the activation energy attaining a certain value, independent of the number of Ag-atoms required for this purpose. The efficacy of the sensitivity center must here be understood to be the depth of the corresponding "energy trap". The more

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The Energy of the Activation of the Thermal Fading S/020/60/131/01/060 of a Latent Photographic Image S/020/60/131/01/060

difficult the formation of the latent image, the more Ag-atoms are required for the purpose of obtaining an image of critical extent (which suffices for the subsequent catalysis of the image). There are 1 figure, 1 table, and 7 references, 6 of

PRESENTED:

September 12, 1959, by A. F. Ioffe, Academician

SUBMITTED:

September 8, 1959

1

Card 3/3

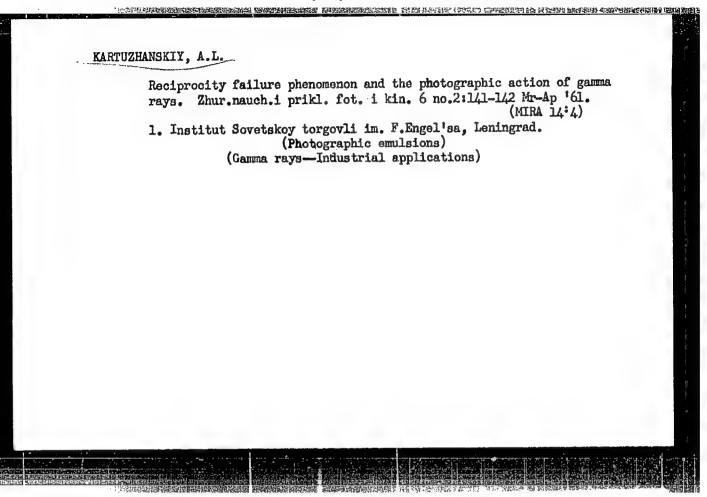
Kinetics of development of the separate track of an ionized particle in the photographic emulsion. Part 2. Kinetics of development of regressed tracks and regression development centers. Zhur. nauch. i prikl. fot.i kin. 6 no.1:14-18 Ja-F '61. (MIRA 14:3) 1. Institut Sovetskoy torgovli imeni F. Engel'sa, Leningrad. (Photography, Particle track)

KARTUZHANSKIY, A.L.; SOLTITSKIY, B.P.

Sensitizing photographic materials by triethanolamine to improve the technique of autoradiography. Biofizika 6 no. 1:126-127 '61. (MIRA 14:2)

1. Leningradskiy sel'skokhozyaystvennyy institut.
(ETHANOL) (AUTORADIOGRAPHY) (PHOTOGRAPHIC CHEMISTRY)

CARLEST TO A REPORT OF THE PROPERTY OF THE PRO



"Grundriss der Photographie und ihrer Amwendung in der Atomphysik" by G.Joos, E. Schopper. Reviewed by A.L. Kartuzhanskii. Zhur. nauch. i prikl. fot. i kin. 6 no. 3:239-240 My '61. (MIRA 14:5) (Photography) (Joos, G.) (Schopper, E.)

KARTUS ELLECKY, A.L.; STEP, L.I.

Sensitization of photographic callsions with triethanclamino.

Eher.nunch.i prikl.fot. 1 kin. 6 no.4:306-316 JI-Ag 161.

(Fhotographic caulsions)

(Triethanolauino)

S/081/62/000/011/010/057 E111/E152

AUTHOR: Kartuzhanskiy, A.L.

TITLE: Experimental determination of the activation energy

of the thermal resorption of latent-image centres

of various dimensions

PERIODICAL: Referativnyy zhurnal, Khimiya, no.11, 1962, 68,

abstract 11 B 424. (Zh. nauchn. i prikl. fotogr. i

kinematogr., v.6, no.6, 1961, $449-\bar{4}50$).

TEXT: A method is proposed for the experimental determination of the energy of activation for the thermal resorption (U_i) of centres of the latent image (LI), consisting of different numbers i of Ag atoms. The method is essentially: if from experiments on mutual irreplaceability under the action of particles A, B, C with various ionizing abilities the values U_{iA}, U_{iB}, U_{iC} were obtained, then the dimensions of the corresponding centres LI i_A, i_B, i_C can be obtained from analysis of the isoopacity for threshold developing times

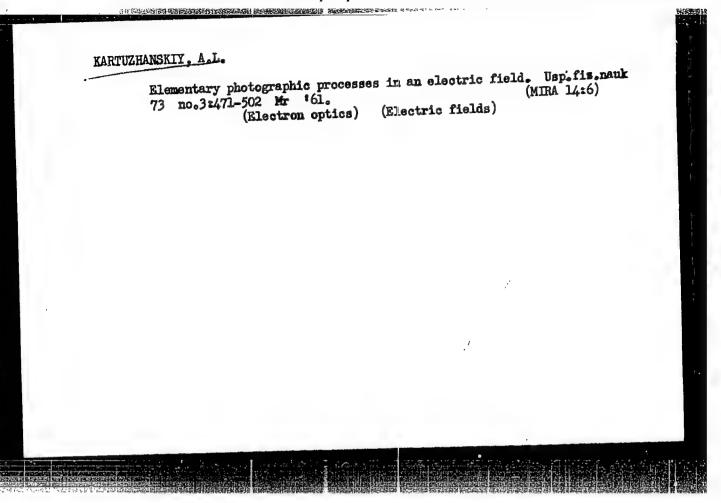
Experimental determination of ...

S/081/62/000/011/010/057 E111/E152

 t_A , t_B , t_C (the developing times at which individual traces of particles become just distinguishable), in their turn determined from curves of the kinetic development of traces of particles A, B, C. The isoopacities are constructed for a density close to the darkening threshold, for example about 0.1 above the fog. By this method the relation U = f(i) was obtained for certain nuclear emulsions.

\[\lambda \text{Abstractor's note: Complete translation.} \]

Card 2/2



是其他的,我们就是我们的,我们就是我们的,我们就是一个人,我们就不是一个人,我们也没有我们是我的。 **这一个人的人,我们不是我们的人,我们**是我们的人,我们也没有

BOGOMOLOV, K.S., red.; PERFILOV, N.A., red.; BELOVITSKIY, G.Ye., red.;
DOBROSERDOVA, Ye.P., red.; ZHDANOV, G.B., red.; KARTUZHANSKIY,
A.L., red.; LYUBOMILOV, S.I., red.; MINERVINA, Z.V., red.;
RAZORENOVA, I.F., red.; ROMANOVSKAYA, K.M., red.; SAMOYLOVICH,
D.M., red.; STARININ, K.V., red.; TRET'YAKOVA, M.I., red.;
UVAROVA, V.M., red.; SHUR, L.I., red.; POPOVA, A.K., red.; VEPRIK,
Ya.M., red.; VERES, L.F., red. izd-va; KUZNETSOVA, Ye.B., red. izd-va; POLYAKOVA, T.V., tekhn. red.

[Nuclear photography; transactions] IAdernaia fotografiia; trudy tret'ego Mezhdunarodnogo soveshchaniia. Moskva, Izd-vo Akad. nauk SSSR. 1962. 474 p. (MIRA 15:6)

1. Colloque International de Photographie Corpusculaire. 3d,
Moscow, 1960. 2. Nauchno-issledovatel'skiy kinofotoinstitut,
Moskva (for Bogomolov, Uvarova, Romanovskaya, Starinin). 3. Predsedatel' Organizatsionnogo komiteta Tret'yego Mezhdunarodnogo soveshchaniya po yadernoy fotografii. 1960, Moskva (for Bogomolov).
4. Zamestitel' predsedatelya Organizatsionnogo komiteta Tre'yego
Mezhdunarodnogo soveshchaniya po yadernoy fotografii. 1960, Moskva
(for Perfilov). 5. Radiyevyy institut im. V.G.Khlopina Akademii
nauk, Leningrad (for Shur, Perfilov). 5. Institut sovetskoy torgovli
im. F.Engel'sa (for Kartuzhanskiy). 7. Ob"yedinennyy institut yadernykh issledovaniy, Dubna (for Lyubomilov). 8. Institut atomnoy
energii im. I.V.Kurchatova Akademii nauk SSSR, Moskva (for
Samoylovich).

(Photography, Particle track)

KARTUZHANSKIY, A. L., PYASETSKAYA, O. V., AND VENDROVSKIY, K. V.

"On the photometric equivalence of the blackening caused by the influence of light and corpuscular rays" $\,$

Fourth International Colloquium on Photography (Corpuscular) - Munich, West Germany, 3-8 Sep 62

KARTUZHANSKIY, A.L.

Energy of activation of the heat rescrption of latent image centers as a function of the number of atoms in them. Zhur.nauch.i prikl. fot.i kin. 7 no.1:57-58 Ja-F '62. (MIRA 15:3)

1. Leningradskiy institut sovetskoy torgovli imeni Engel sa. (Photochemistry) (Photographic emulsions—Testing)

KARTUZHANSKIY, A.L.; SOLTITSKIY, B.P.

Specimen for determining the resolving power of photographic layers exposed to nuclear radiation. Zjur.nauch.i prilk.fot. i kin. 7 no. 3:223-224 My-Je '62. (MIRA 15:6)

 Leningradskiy institut sovetskoy torgovli imeni F.Engel[†]sa. (Photographic emulsions—Testing) (Radiography)

S/811/62/000/000/002/003

AUTHOR: Kartuzhanskiy, A. L.

TITLE: The phenomenon of the noninterchangeability in the photographic effect

of miclear radiations.

SOURCE: Yadernaya fotografiya; Trudy Tret'yego Mezhdunarodnogo soveshchaniya po yadernoy fotografii, Moskva, iyul' 1960g. K.S. Bogomolov and N.A. Perfilov, eds. Moscow. Izd-vo AN SSSR, 1962, 66-72.

TEXT: This report on Emboratory tests endeavors to recomine divergences in previous experimental findings on the noninterchanguability (NIC) of time and exposure intensity in achieving a specified degree of photographic blackening with nuclear radiation. Previously I.A. Fomina, nee Kovner (ZhETF, v. 20, 1950, 401), had found NIC for medium-energy (30-80 kev) electron beams for times of the order of 1 sec, but none for shorter or longer times, and had also ascertained changes in the NIC effect attributable to changes in development (Zh. nauchn. i prikl. fotogr. i kinematogr., v. 1, 1956, 331) and temperature (ibid., v. 4, 1959, 94). Digby, Firth & Hercock (J. Phot. Sci., v. 1, 1953, 194) and Ray & Stevens (Brit. J. Radiol., v. 26, 1953, 362) had not encountered the effects reported by Fomina (Kovner), but had detected a distinct NIC for much longer exposure times (minutes to days). The present investigation of the NIC for various nuclear radiations was undertaken in connection with several problems of quantitative autoradiography; hence, the

The phenomenon of the noninterchangeability ...

5/811/62/000/000/002/003

exposure times run from minutes to weeks and, on exceptional occasions, to months. The tests confirmed the Ray-Stevens conclusions and revealed a profound analogy of the NIC relative to particle action and the NIC for low-intensity light. A flux of \beta-particles emanating from C14 and P32 isotopes in activity-graded solutions of Na2CO3 and Na2HPO4 was used; a decay correction for time was applied to the P32 radiation sources. Diapositive, electronographic, and nuclear HNKON (NIKFI) P- (R-) type plates (the latter with a 15-20 µ thick emulsion). All development was performed in ID-19, diluted 1:2, at T=20°C, time - 8 min (mechanical stirring with a soft rubber brush). The relative exposure intensity H was plotted against time, and iso-opaques were drawn. logH = 1.0 was designated to signify the absence of the NIC effect. The regressional nature of the effect is shown by the fact that the degree of the drop in sensitivity with increase in time is greater for lower emulsion sensitivities and ionizing effectiveness of the particles; also, at higher temperatures the drop in sensitivity becomes more pronounced and the time thresholds of the effect are shortened. The effects of other parameters (20-min extended development, soaking in 1% NaNO2 solution prior to exposure, lowpressure exposure at 1 mm Hg) are tabulate 1. Similar effects were observed under a -particle radiation from a Po²¹⁰ source. Tests were also made with y-rays emitted by the Co⁶⁰ of a gulatinous wedge, linearly tapered, of CoCl₂ (cf. Kuzin, A.M., Mamul', Ya.V., Sbornik "Primen nive mechenykh atomov v analiticheskoy khimii (The application of tagged atoms in analytical chemistry), " Indiva AM SSSR, Card 2/4

The phenomenon of the noninterchangeability. . .

S/811/62/000/000/002/003

1955) to cover an entire linear range of exposure intensity simultaneously. The iso-opaque curves obtained lend themselves to an analytical expression developed by P.V. Meyklar (ZhETF, v. 23, 1952, 217) for low-intensity flare spots. It is concluded that for a given emulsion the minimal number of Ag atoms in the sensitization center, No, is the same for light and for particles of any kind; the activation energy of thermal resorption, U, grows monotonically with the ionizing capacity of the particles, i.e., the thermal destruction of the centers becomes increasingly difficult as the ionizing capacity of the particles generating them increases; lastly, U is always greater for particles than for light. The difference of the U values for various particles is interpreted as a difference in the dispersity of the latent image formed by them, andthe magnitude of U itself is regarded as a fully single-valued characteristic of the relative magnitude of the centers in the crystals of a given emulsion. This is the substance of the present study of the NIC with respect to particles. Thanks are expressed to B.P. Sollitskiy for his assistance with the preparation of the C14 and P32 sources. There are 5 figures, 2 tables, and 12 references (10 Soviet and the cited & English-language papers). Presentation of the paper was followed by a discussion in which L. M. Biberman (senior author associated with I.A. Fomina (Kovner) took issue with the author's use of Meyklar's lowintensity-light formula as unjustified. asserts that almost any kind of theoretical curve can be fitted to the author's gently sloping experimental data by suitable

Card 3/4

The phenomenon of noninterchangeability...

5/811/62/000/000/002/003

coefficients, and terms the author's conclusions unconvincing and overextended. The author rejects these comments and recommends that the interlocutor deferany criticism pending a perusal of the full paper.

ASSOCIATION: Institut sovetskoy torgovli im. F. Engel's (Institute of Soviet Commerce imeni F. Engels), Leningrad, USSR.

Card 4/4

VENDROVSKIY, K.V.; KARTUZHANSKIY, A.L.; PYASETSKAYA, O.V.

Dependence of the photometric equivalent upon the nature of the radiation acting on the photographic layer and upon the conditions of exposure. Zhur, nauch, i prikl, fot, i kin. 8 no.1:67-69

Ja-F 163. (MIRA 16:2)

1. Vsesoyuznyy nauchno-issledovatel skiy kinofotoinstitut (NIKFI) i Leningradskiy institut sovetskoy torgovli imeni F.Engel'sa.

(Photographic sensitometry)

KARTUZHANSKIY, A.L. Study of elementary particles by the photographic method* by C.F.Powell, P.Fauler, D.Ferkins. Reviewed by A.L.Kartuzhanskii. Zhur.nauch.i prikl.fot.i kin. 8 no.1:78-79 Ja-F '63. (Photography, Particle track) (Powell, C.F.) (Fauler, P.) (Perkins, D.)

KARTUZHANSKIY, A.L.; SHUR, L.I.

Latest data on the mechanism of the action of triethanolamine on photographic emulsions. Zhur, nauch, i prikl, fot, i kin. 8 no.3:228-229 My-Je '63. (MIRA 16:6)

(Ethanol) (Photographic emulsions) (Photography, Particle track)

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KARTUZHANSKIY, A.L.; SHUR, L.I.

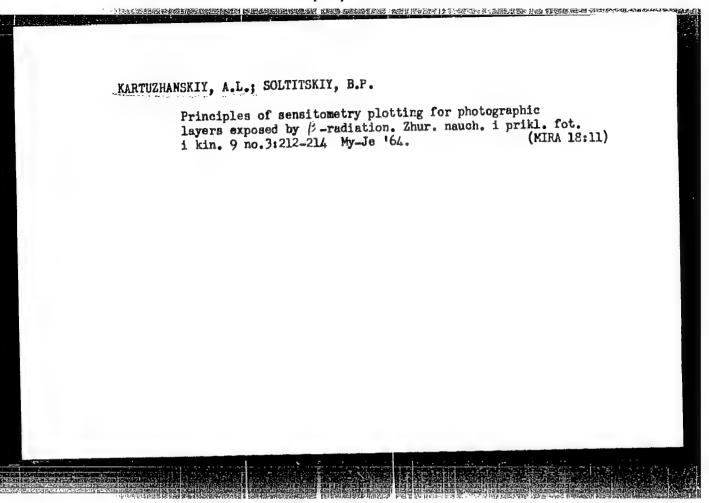
Studying the mechanism of the sensitizing of nuclear emulsions by some dyes. Zhur. nauch. i prikl. fot. i kin. 8 no.4:261-267 Jl-Ag *63. (MIRA 16:7)

 Leningradskiy institut sovetskoy torgovli imeni F. Engel'sa. (Photography, Particle track) (Photographic emulsions)

VEPRIK, Ya.M.; KARTUZHANSKIY, A.L.; TABOLA, V.P.

Relationship between the surface and internal latent images determined by the physical development. Zhur. nauch. 1 prikl. fot. 1 kin. 8 no.4:309-310 Jl-Ag '63. (MIRA 16:7)

1. Leningradskiy institut kinoinzhenerov (LIKI). (Photochemistry) (Photography—Developing and developers)



KARTUZHANSKIY, A.L.

Literature on electrophotography published in Russian from 1958 to 1962. Zhur. nauch. i prikl. fot. i kin. 9 no.3:238-239 My-Je '64.

Index of books on color photography published from 1958 to 1962. Ibid.:239 (MIRA 18:11)

KARTUZHANSKIY, A.L.

Comparing the dispersibility of the lutent image formed by the effect of light and by the effect of ionizing particles. Zhur.nauch. i prikl. of light and by the effect of ionizing particles. Zhur.nauch. i prikl. fot. i kin. 9 no.4:276-282 Jl-Ag '64.

1. Leningradskiy institut sovetskoy torgovli imeni Engel'sa.

L 63819-65 ACCESSION NR: AP5011723 UR/0077/64/009/004/0300/0302 AUTHOR: Zhdanov, A. P.; Kertuzhanskiy, A. L.; Martjsh, G. G.; Shur, L. I. 18 TITLE: Effect of polyethylene glycol on nuclear photographic emulatons 1.0 SOURCE: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, v. 9, no. 4, 1964. 300-302 TOPIC TAGS: photographic chemistry, photographic chemical, nuclear emulation, photosensitivity, glycol ABSTRACT: Adding polyethylene glycol (PEG) to various photographic emulsions can substantially increase their light-sensitivity. The effect of PEG on various nuclear emulsions differing in characteristics, was tested both for exposure to light and to particles. It was added to emulsion in amounts from 0.8 to 3.2 grams per liter of emulsion. The experiments were performed on two relativistic emulaion s -- the R-NIKFI type and the extra fine grain PR-2, and two less sensitive emulsions, -- the Va-2 and A-2 type. After glazing, the emulsion layers were exposed to low intensity light (exposure time = 45 seconds) through a graduated wedge, and also irradiated with Po210 alpha-particles, C14 beta-radiation in a special sensitometer, and by a beam of relativistic electrons, The results showed that the sensitivity to Card 1/2

L 63819-65 ACCESSION NR: AP5011723 particles was not appreciably in ment in light sensitivity in all the light-sensitivity results we relationship to the original sention of ampletons	cases was quile distinct as that the increment in	Another feature of iensitivity bor no
tion of emulsions, but dropped of Therefore, the effect of FEG is centers participate, but with re of the AgHal crystal participate ASSOCIATION: none	related not to the reacti	ons in which sensitivity re bulk or surface
NO REF SOV: 006	OTHER: OCO	SUB CODE: ES, GC JPES
Card 2/2		

KARTUZHANSKIY, A.L.

Comparing the parameters of latent images in optical and nuclear emulsions. Zhur.nauch. i prikl.fot. i kin. 9 no.6:414-419 N-D 164. (MIRA 18:1)

1. Leningradskiy institut sovetskoy torgovli imeni F. Engel'sa.

KARTUZHANSKIY, A.L.; SOLTITSKIY, B.P.

Resolving power of photographic layers exposed to nuclear radiation. Usp. nauch.fot. 10:253-261 '64. (MIRA 17:10)

KARTUZHANSKIY, Aleksandr L'vovich; IOFIS, Ye.A., kand. tekhn. nauk, red.; BOGATOVA, V.S., red.

[Physical foundation of the photographic processes on silver halide salts] Firicheskie osnovy fotograficheskogo protessa na galogenidosere brianykh soliakh. Moskva, Iskusstvo, 1965. 84 p. (MIRA 18:5)

1. 26934-65 FSS-2/ENT(1)/ENA(d)/T/EED(b)-3/ENI(c) Pae-2 IJP(c)

ACCESSION NR: AP5004211 5/0077/65/010/001/0076/0079

AUTHOR: Kartuzhanskiy, A. L.

TITLE: 16th all-union conference on scientific photography devoted to nuclear photography 10

SOURCE: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, v. 10, no. 1, 1965, 76-79

TOPIC TAGS: scientific photography, photographic emulsion, nuclear photography

ABSTRACT: The conference was the first to be specially devoted to nuclear photography, and was held from 30 September through 3 October 1964 in Leningrad. Approximately 150 persons participated, representing 19 institutions and organizations from Moscow, Leningrad, Dubna, Yerevan, Kazan", and other cities. Twenty-five papers were read and discussed at six sessions held in five sections. The first

Card 1/65

L 26934-65 ACCESSION NR: AP5004211

16

section "Photographic action of charged particles" included three papers: "Dependence of ionizing ability on the momentum for ultrarelativistic electrons and positrons by G. B. Zhdanov, M. I. Tret'yakova, and M. N. Shcherbakova; "Investigation of the influence of intensity of an electron beam and the temperature on the sensitivity of photographic emulsions" by K. S. Bogomolov, I. A. Fomina, and V. S. Markova and "Direct method of determining the microsensitivity of AgBr microcrystals to charged particles" by I. M. Kuks. The second section was devoted to "Preparation of photographic materials for nuclear research" and included four papers: "Properties of type PR-2 fine-grain emulsion" by N. A. Perfilov, N. R. Novikova, V. I. Zakharov, and Ye. V. Fadina, "Use of synthetic polymers in the preparation of fine-grain nuclear emulsions" by N. R. Novikova, V. I. Zakharov and Ye. V. Fadina, "On sensitivity centers and development centers of unsensitized nuclear emulsions" by D. M. Samoylovich, and "Theoretical justification of the choice of developing substance for inclusion in the nuclear emulsion" by Ya. M. Veprik, A. P. Zhdanov,

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L 26934-65

ACCESSION NR: AP5004211

G. G. Martysh, and L. I. Shur. The third section "Investigation of the properties of nuclear emulsions and their preliminary processing" included seven papers: "Kinetics of reduction of silver ions on goldsilver centers" by Ya. M. Veprik. "Sensitivity centers of emulsions successively sensitized with gold and triethylene amine" and "comparative hypersensitization of nuclear emulsions by triethylene amine and other alkali sensitizers, " by D. M. Samoylovich, I. V. Ardashev and Ye. S. Barinova, "Regression of sensitivity and of the latent image in photographic emulsions for nuclear and light radiations by A. L. Kartuzhanskiy, A. F. Yurchenko, I. I. Shur, and G. G. Martysh, "Mechanism for the influence of moisture on the stability of sensitivity centers and of the latent image" by K. M. Romanovskaya and K. S. Bogomolov, "Registration of alpha stars from radioactive nuclei and time discrimination of alpha-particle tracks in nuclear emulsions" by I. B. Berkovich, A. P. Zhdanov, and L. I. Shur, and "Enrichment of nuclear emulsions by hydrogen nucle!" by L. N. Bokova and L. G. Kriventsova. The fourth section dealt with "Photographic processing of nuclear emulsions" and included six papers: "Penetration of compo-3/6

L 26931-65 ACCESSION NR: AP5004211

nents of processing solutions into photographic emulsions by I. B. Blyumberg, "Accelerated method of processing nuclear emulsions 600 µ thick" by A. B. Akopova, "Investigation of threshold oxidation in the development of the latent image produced by charged particles in different nuclear emulsions" by N. P. Mocherov, and "Development of thick emulsions in an electrodyalizer. by D. M. Samoylovich, A. A. Kondrashina, and V. G. Tarasenkov, and "Automatization of isothermal development of nuclear emulsions" by V. D. Ryabov and A. M. Gushchin, and "Investigation of 4-aminopyrazolones-5 as developers for nuclear photography, by K. S. Bogomolov, T. I. Krestovnikova, M. S. Khaykin and I. I. Levkoyev. The fifth section was devoted to "Measurement and analysis of particles" and included four papers: "Development of first commercial models of microscopes for nuclear emulsions with automatic readout of digital information, and the practice of their use in conjunction with electronic computers" was the joint effort of the Fiziko-tekhnicheskiy institut im. A. F. Ioffe (Physicotechnical Institute) (A. S. Assovskaya, F. G. Lepekhin, M. M. Makarov) and

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L 26934-65

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12

the LOOMP joint group (R. M. Raquzin, G. Ye. Skvortsov, N. M. Fedorova), "Semiautomatic installation for the measurement of geometrical parameters of tracks in nuclear photographic plates and practice of its use for the measurement of neutron spectra" by G. Ye. Belovitskiy, A. Ye. Voronkov, and L. V. Sukhov, "Experience with an instrument for automatic measurement of ionization and momentum on relativistic-particle tracks" by A. Ye. Voronkov, G. B. Zhdanov, M. F. Solov'yeva, L. V. Sukhov, M. I. Tret'yakova and M. M. Chernyavskiy, and "measurement of the relative ionization from the blob count and the gap spectrum on tracks of fast particles in nuclear emulsions," by A. S. Assovskaya and F. G. Lepekhin. The last section included also a paper "calculation of the resolution of photographic emulsions under autoradiography conditions" by Kh. A. Getsel'. K. S. Bogomolov reviewed the papers delivered at the Fifth International Collequium on Nuclear Photography held in Geneva in September 1964.

ASSOCIATION: None

Card

5/6

KARTUZHANSKIY, A.L.; YURCHENKO, A.F.

New type of aging of photographic smulsions. Zhur.nauch.i prikl.fot.
i kin. 10 no.3:217-218 My-Je '65. (MIR* 18:11)

1. Ieningradskiy institut sovetskoy torgovli imeni F.Engel'sa.

ACC NR: AT7000924

SOURCE CODE: UR/3180/66/012/000/0091/0095

AUTHOR: Kartuzhanskiy, A. L.

ORG: none

TITLE: Possibility of discriminating between types of radiation recorded in the form of photographic density

SOURCE: AN SSSR. Komissiya po khimii fotograficheskikh protsessov. Uspekhi nauchnoy fotografii, v. 12, 1966. Yadernaya fotografiya (Nuclear photography), 91-95

TOPIC TAGS: nuclear emulsion, particle track, track analysis, radiation detecting device

ABSTRACT: The author analyzes various methods of identifying a detected particle by ascertaining the nature of the track it leaves in the emulsion. These are aimed at separating the useful density from that of the background, determining means of intensifying the useful density without similar intensification of the background, weakening the background density without a similar weakening of the useful density, or a combination of these procedures. Differences between this type of discrimination and other known methods used in nuclear photography, of modifying the widths and optical densities or the number of grains per unit length in the tracks of different particles are described. The methods discussed are discrimination prior to exposure, during the

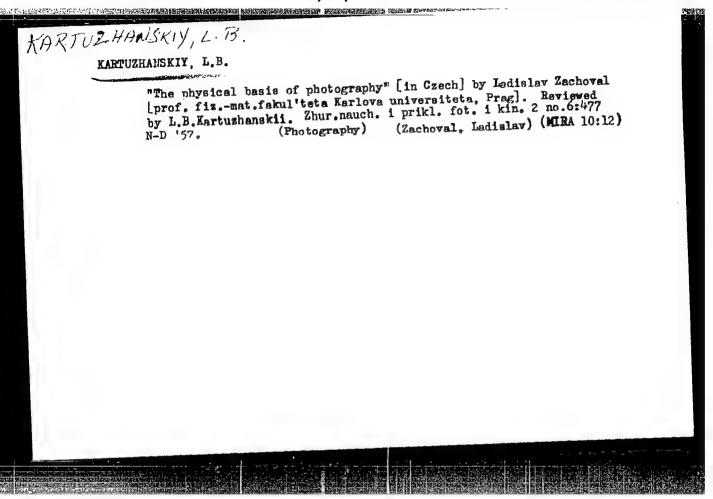
Card 1/2

ACC NR: AT7000924

time of the exposure, between exposure and development, during the development, and after development. The only possibility of creating conditions favoring discrimination prior to exposure is to make use of the unequal role of deep and shallow traps for electrons under the influence of different radiation. Discrimination during the time of exposure would possibly consist of varying the temperature conditions in the emulsion. There are more opportunities for discrimination in the interval between exposure and development, such as the Herschel effect, thermal or chemical (accelerated) regression, oxidation of the latent image, and others. There is little that can be done during development, although some variant of physical development may contribute to discrimination during development. Discrimination after the completion of the chemical-photographic processing is possible only if some electron-microscopic differences can be revealed between the tracks produced by different types of radiation. It is pointed out in conclusion that each of the methods has strong limitations.

11,07/ SUB CODE: 204 SUBM DATE: 00/ ORIG REF: 009/ OTH REF: 009

Card 2/2



KARTUZHANSKIY, L. I.

Building-Contracts and Specifications

"Building Law and building contracts." I. L. Braude. Reviewed by L. I. Kartuzhanskiy, Vest. Len. un. 6, No 11, 1951

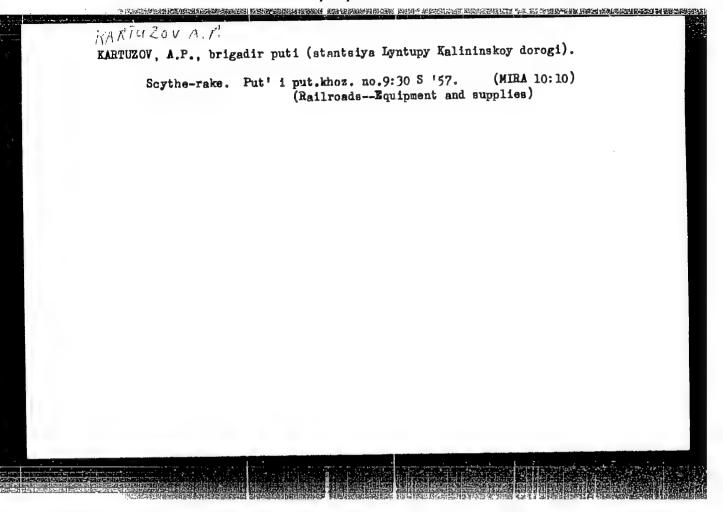
Monthly List of Russian Accessions, Library of Congress, September 1952. UNCLASSIFIED

KARTUZHANSKIY, L. I.

Contracts

Present-day status of economic contracts and arbitration, Uch. zap. Len. un. No. 129, 1951.

9. Monthly List of Russian Accessions, Library of Congress, New 1952, Uncl.



We take good care of our peasuring instruments, Put' i put.khos. no.11:12
N '58. (MIRA 11:12)
(Railroads--Equipment and supplies) (Measuring instruments)

107-57-3-46/64

AUTHOR: Manuilov, V., Kozyrev, A., and Kartuzov, I.

· TITLE: The "Melodiya" Tape Recorder (Magnitofon "Melodiya")

PERIODICAL: Radio, 1957, Nr 3, pp 42-45 (USSR)

ABSTRACT: Soviet industry has built and is releasing for sale a new portable tape recorder, "Melodiya." Its performance meets the requirements of the fourth group of GOST 8088-56. Type 2 or SN tape should be used with the new double-track tape recorder. At 9.53 cm/sec tape speed, the apparatus can record and reproduce a frequency band of 100 to 6,000 cps with 3 db irregularity at 400 cps. The overall recording-and-reproduction distortion factor is 2.8% at an output of 1.5 w. The signal-noise ratio is 38 db. Sensitivity of the recorder at 1,000 cps: at microphone terminals, 0.5 mv; at "phono" terminals, 100 mv; at "radio" terminals, 3 volts; and at wire-broadcast-line terminals, 10 volts. Outputs for an external amplifier and an external speaker are provided. Output voltage for an external amplifier is 775 mv on 30 kohms, and output voltage for the external speaker is 2.15 volts on 3 ohms. Tone control has a range of 20 db at 6,000 cps. The erasing and magnetizing HF oscillator functions at 50 kc. A visual recording-level indicator has a time constant of 250 m/sec. Up

Card 1/3

107-57-3-46/64

The "Melodiya" Tape Recorder

to 250 m of tape can be accommodated on a reel, which amounts to ninety minutes of recording time on both tracks. The time of fast forward or fast rewind motion is under 100 seconds. A pointer-type selection locator is provided for rough determination of tape length. Three knobs and a keyboard switch serve to control the recorder. Cabinet dimensions are 200 x 300 x 370 mm. The recorder consumption is 65 w for recording or reproducing, and 100 w for fast rewinding, AC, 110, 127, 200, or 220 volts. The performance remains good within line-voltage fluctuations of +5% -- 10%. A continuous operation for three hours is permissible. A dynamic MD-55 microphone, two connecting cables, three reels, and spare erasing and universal heads are supplied with the recorder. A pictorial diagram given in the article shows the mechanical construction of the recorder. A simplified circuit diagram of the amplifier and of the recorder proper is also presented. Recording and reproduction frequency response curves are shown in the band of 60 cps to 10,000 cps. The following tubes are used: two 6N2P, two 6P1P, and one 3-3-488. A selenium type ABC-80-260 rectifier feeds the anodes. Magnetic head, coil, and transformer

Card 2/3

The "Melodiya" Tape Recorder
data is tabulated.
There are four figures and one table in the article.

36188 Glubokaya vytyazhka detaley iz orgstekla (pleksiglasa). Priborostroeniye, vyp. 4
1948, S. 50-53.

S0: Letopis': Zhrunal' nykh Statey. No. 49, 1949

PANOV, N. [translator]; KARTUZOV, P. [translator]; BOCHAROVA, Z. [translator]; KURYLEV, Ye.S., dotsent [translator]; RYUTOV, D.G., kand.tekhn. nauk, red.; CHICHKOV, N.V., red.; SUDAK, D.M., tekhn.red.

[Ninth International Congress on Refrigeration; collection of reports] IX Mexhdunarodnyi kongress kholoda. Sbornik dokladov. Pod red. D.G.Riutova. Moskva, Gos.izd-vo torg.lit-ry, 195β. 197 p. (MIRA 12:7)

1. Mezhdunarodnyy kongress kholoda. 9th, Paris, 1955. 2. Laboratoriya tekhnicheskoy informatsii Vsesoyuznogo nauchno-issledovatel'skogo instituta kholodil'noy promyshlennosti (im.A.I. Mikoyana) (for Panov, Kartuzov, Bocharova). 3. Leningradskiy tekhnologicheskiy institut kholodil'noy promyshlennosti (for Karylev).

(Refrigeration and refrigerating machinery -- Congresses)

\$/081/61/000/014/012/030 B103/B217

AUTHOR:

Kartuzov, P. V.

TITLE:

Some applications of computers in technological processes

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 14, 1961, 326, abstract 14/1143. (Vestn. tekhn. i ekon. inform. N.-i. in-t tekhn.-ekon. issled. Gos. kom-ta Sov. Min. SSSR po khimii, 1959, no. 6 (18), 43 - 48

TOWN THE STATE OF THE STATE OF

TEXT: Review of foreign publications on the application of analog and digital computers for automatic control in the chemical industry. [Abstracter's note: Complete translation.]

Card 1/1

GONCHAROV, L.V., otv. red.; MARTYNOV, V.A., red. SVANIDZE, I.A., red.; KARTUZOV, S.P., red.; KOZLOVSKAYA, G.M., red.

[Economics of Africa] Ekonomika Afriki; sbornik statei. Moskva, Nauka, 1965. 174 p. (MIRA 18:9)

1. Akademiya nauk SSSR. Institut Afriki.

E-22416-65 EED-2/EWT(d)/EWP(1) Pg-4/PQ-4/Pq-4 LJP(c) G3/BB/WCK ACCESSION NR: AT4047760 Pk-4 S/0000/64/000/000/0243/0253

AUTHOR: Kartuzov, Ye. V.

160

TITLE: Low-frequency logical elements based on ferrite-diode transformer circuits

SOURCE: AN SSSR. Institut avtomatiki i telamekhaniki. Teoriya i primezeniye avtomaticheskikh sistem (Theory and application of automatic systems). Moscow, Izd-vo Nauka, 1964, 243-253

TOPIC TAGS: logical element, ferrite diode element, low frequency logical element

ABSTRACT: A multifunctional multi-input logical element is described which is intended for realizing a sum of products or a product of sums with a partial or total inversion (or some other complicated function). The new multifunctional element includes a unit generator, a repeater; and several control elements

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ACCESSION NR: AT4047760

according to the number of inputs: methods of voltage compensation and shunting a winding in recording I are used. Various logical operations including "AND-negation," "OR-negation," "negative OR," implication, modulus-2 addition, etc., are possible. These logical devices based on the new multifunctional element are considered: a dynamic trigger (as a storage unit), a counter-input dynamic trigger, a delay unit, a single-digit code converter, and a binary counter. The multifunctional element "was developed jointly with R. V. Bilik and V. A. Zhozhikashvili." Orig. art. has: 15 figures and 15 formulas.

NO REF SOV: 004

ASSOCIATION: none

SUBMITTED: 06Jun64

SUB CODE: DP. EC

ENCL: 00

OTHER: 000

Card 2/2

L 28057-66 EWA(h)/EWT(d)/EWT(1)/EWP(1) IJP(c) TG/GG/BB/JXT(CZ)/GS ACC NR: AT6002985 SOURCE CODE UR/0000/65/000/000/0165/0173 AUTHOR: Kartuzov, Ye. V.; Raykin, A. L. ORG: none TITLE: Reliability of ferrite-diode logical elements SOURCE: Vsesoyuznoye soveshchaniye po magnitnym elementam avtomatiki i vychislitel noy tekhniki. 9th, Yerevan, 1963. Magnitnyye tsifrovyye elementy (Magnetic digital elements); doklady soveshchaniya. Moscow, Izd-vo Nauka, 1965, 165-173 TOPIC TAGS: logical element, ferrite diode element ABSTRACT: A mathematical model of reliability of logical elements that have more than 2 inputs is offered. The model permits evaluating the consequences of failures of individual elements due to short-circuits or breaks with an allowance for the role of the element in the equipment. Also, the reasonable minimum number of inputs of the logical element which still guarantees its specified reliability can be determined. The above approach to reliability evaluation is demonstrated by an example of an Card 1/2

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shows tional for th	element with s of the logical the conseque method (e.g. the probability the probability to the number of	nces of failu Laplace's that the clem	o set up on the res of individu transforms), (ent in question	basis of a 'ial componer the different	diagram of the Solved ial equations	states" whi by a conven yield a for	ich mula
outlin	ed number of sent illustrates and Orig. art	has: 4 figu	Procedural a ures, 19 form	iteps in the rulas, and 3 i	eliability ca ables.	3-input ANI Iculations a)- ire
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	2/2 00						

**CC NR: AT6002984

SOURCE CODE: UR/0000/65/000/000/0156/0164

AUTHOR: Bilik, R. V.; Zhozhikashvili, V. A.; Kartuzov, Ye. V.

ORG: none

TITLE: Ferrite-diode logical elements for remote control and telemetry

SOURCE: Vsesoyuznove soveshchaniye po magnitnym elementam avtomatiki i vychislitel'nov tekhniki, 9th, Yerevan, 1963. Magnitnyye tsifrovyye elementy (Magnetic digital elements); doklady soveshchaniya. Moscow, Izd-vo Nauka, 1965, 156-164

TOPIC TAGS: logical element, remote control, telemetry

ABSTRACT: Several ferrite-core-plus-diode logical elements and switching circuits are described; the experimental elements used VT-2 and K-65, $10 \times 6 \times 2.5$ -mm ferrite cores. A 4-core AND-gate is briefly described, and the plots of power, current, and current ratio vs. supply voltage for 2-10 inputs are presented. A 3-core NOT gate (inverter) is briefly described. A circuit diagram is shown that carries out the Scheffer operation: $f = x \wedge y = x \vee y$. Also, a circuit diagram for a

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ACC NR. AT6002984

NOR operation is shown. Of combination logical elements, the inhibition, implication, nonequivalence $[f * (\bar{x} \land y) \lor (x \land \bar{y})]$, and multifunctional elements are briefly covered. Also, principal circuits and relations for the dynamic trigger, count trigger, and single-digit code converter are given. Orig. art. has: 15 figures and 15 formulas.

SUB CODE: 13, 09 / SUBM DATE: 23Apr65 / ORIG REF: 002

Card 2/2/02/

29688

S/181/61/003/010/010/036 B102/B108

9,4170 (1051,1035, 1482)

AUTHORS: Galavanov.

Galavanov, V. V., Kartuzova, I. A., and Nasledov, D. N.

TITLE:

Measurement of the diffusion length of minority carriers in

InSb

PERIODICAL: Fizika tverdogo tela, v. 3, no. 10, 1961, 2973 - 2980

TEXT: Since the characteristics of InSb infrared receivers depend considerably on the minority-carrier lifetime τ (or their diffusion length L), measurement of these quantities is of great interest. The authors used the Waldes method to determine L and τ in n- and p-type InSb single crystals having impurity concentrations between 10^{12} and 10^{16} cm⁻². L was determined by the Waldes light-probe method. For weak illumination intensities, when the collector photo-emf V (kT/5e (e - electron charge), V is proportional to the light-induced minority carrier concentration. When the surface recombination rate is small, V = V exp(-x/L) in the dark (x - distance from the illuminated region). This relation holds for one-dimensional geometry. In axisymmetric geometry V = V exp(-x/L)/\forall \tau. It was to be found experimentally which of these formulas has to be applied. Card $1/\frac{4}{3}$ U

Measurement of the diffusion ...

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The 0.2 - 2 mm thick test pieces were polished and then etched with CP-4A (SR-4A). They were placed in a vacuum cryostat with an NaCl window. The light inciding on the specimen was interrupted by an 800-cps chopper. A tungsten or phosphor-bronze point served as a collector contact; a 28-MM (28-IM) amplifier was used to measure the variable photo-emf on it. The measurements were made between 100 and 200 K. The parrier concentration in the specimens at 77 K was determined from the Hall effect, L was determined from the Hall effect.

mined from the inclination of the straight line $\log V = f(x)$. τ was determined from $\tau = L^2/D$ where

 $D=D_{r}\frac{b\left(1+\frac{p_{0}}{n_{0}}\right)}{b+\frac{p_{0}}{n_{0}}},$

 $D_p = u_p kT/e$ being the hole diffusion coefficient, $b = u_n/u_p$, the mobility ratio, p_o and n_o the equilibrium concentrations. For intrinsic conductivity $D = 2bD_p/(b+1)$. In the case of impurity conductivity, $D = D_p$ for n-type, and $D = D_n = u_n kT/e$ for p-type specimens. The carrier concentration in the intrinsic-conductivity region of InSb is given by

Card 2/5L

Measurement of the diffusion ...

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 $n_1 \approx 6 \cdot 10^{14} T^{3/2} \exp(-1510/T)$. The temperature dependence of τ can be seen in Fig. 4. When temperature drops from 170 to 120° K, τ decreases to less than one hundredth its value. In this range the temperature dependence of τ obeys the Shockley-Reed law. It is shown that the experimental curves $\tau = f(1/T)$ agree with the formula

 $\tau = \frac{2\tau_{ini}}{n_0 \to p_0} = \frac{2\tau_{ini}}{\sqrt{4n_i^2 \to N_{n,n}^2}},$ (12)

which holds for a neutral crystal and radiative recombination. N are the majority-carrier concentrations in an n- or p-type crystal in the region of impurity conductivity. $\mathcal{V}=2\mathcal{V}_1\mathbf{n}_1/\mathbf{n}_{n,p}$ holds for the impurity-conductivity region $(\mathbf{n}_i \ll \mathbf{n}_{n,p})$. The straight line corresponding to Auger recombination is too steep. Results: (1) No correlation was found between L and the impurity concentration. (2) The data agree with the radiative-recombination theory for $\mathbf{b} \approx 600-700$. (3) The difficulties arising in the interpretation of the results may be due to an inaccurate measurement of L and an inaccurate calculation of \mathcal{V}_i . There are 5 figures, 1 table, and 24 references: 9 Soviet and 15 non-Soviet. The three most recent refer-

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(2)

29688 S/181/61/003/010/010/036 B102/B108

ences to English-language publications read as follows: R. A. Laff, H. Y. Fan. Phys. Rev. 121, 53, 1961; R. T. Landsberg, A. R. Beattie. J. Phys. Chem. Sol., 8, 73, 1959; R. N. Zitter, A. J. Strauss, A.E.Attard. Phys. Rev., 115, 266, 1959.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR Leningrad (Physicotechnical Institute imeni A. F. Ioffe AS USSR, Leningrad)

SUBMITTED: April 28, 1961

Measurement of the diffusion ...

Legend to the Table: (1) Number of the specimen, (2) voltage. $\frac{13p1.4}{13p1} = \frac{1.4 \cdot 10^{13}}{1 \cdot 10^{13}} = \frac{9 \cdot 10^4}{1.5 \cdot 10^5}$

1.4 · 10¹³ 1 · 10¹³ 5 · 10¹⁵ $9 \cdot 10^{4} \\ 1.5 \cdot 10^{5} \\ 2 \cdot 10^{5}$ $\frac{9 \cdot 10^2}{3 \cdot 10^3}$ 100 13p1 15p5 50 50 30 4 · 10³ 2 · 10³ 6 · 10⁴ 7 · 10⁴ 2 · 10⁵ 4.5 · 10⁴ 16pl 12n2 1 - 1016 2 - 1012 700 103 3.102 2 - 1013 13n2650 13n3 3 - 1013 45 60 6 - 1014 2.103 1.2 - 105

Card 4/5U

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1.	KIRMITZOVA	M. A				

- 2. USSR (600)
- 4. Seeds Testing
- 7. Strength of initial growth as a method for the biological evaluation of seed quality. Sel. i sem. 20, No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953, Unclassified.

KARTUZOVA, M.A., kandidat seliskekhezyaystvennykh nauk.

Determining the quality of seed grain, its preparation for storage, and the rules for storage. Grain-cleaning machines. Est. v shkele ne.4:60-64 Jl-Ag *56. (MIRA 9:9)

1. Meskevskaya sel'skekhozyaystvennaya akademiya imeni K.A. Timiryazeva. (Grain)

With the KAZ trade mark. Za rul. 16 no.11:18-19 N '58.

(MIRA 12:1)

1.Glavnyy konstrukter Kutaisskege avtomobil'nogo saveda
imeni G.K. Ordzhonikidze.

(Motertrucks)

TEACHTEAN THE THE TOTAL TH

GAL'PERIN, M. D.; PIL', B. N.; KARVASARSKIY, B. D.

Radiation therapy of opticochiasmatic arachnitis. Med. rad. no.4: 18-24 '62. (MIRA 15:6)

1. Iz rentgenologicheskogo otdeleniya (zav. - prof. M. D. Gal'perin) Nauchno-issledovatel'skogo psikhonerologicheskogo instituta imeni V. M. Bekhtereva.

(MENINGITIS) (RADIOTHERAPY)

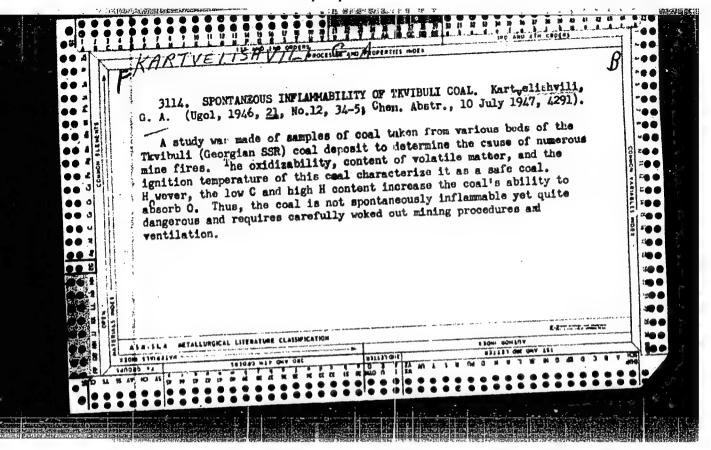
BATIASHVILI, S.M., inzh.; GAVRILICHENKO, V.F., inzh.; KARTVELISHVILI,

D.L., inzh., red.; GERMAN, N.Te., inzh., red.izd-ve; UVAROVA,

A.F., tekhn.red.

[Catalog of parts for the KAZ-600V dump trucks, KAZ-601V cement truck and KAZ-120T saddle-type tractor] Katalog detalei avtomobilia-samosvala KAZ-600V, avtomobilia-tsementovoza KAZ-601V i sedel'nogo tiagacha KAZ-120T. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 323 p. (MIRA 13:11)

Kutaisskiy avtomobil'nyy savod im. G.K.Ordzhonikidze. Kutaisi.
 (Dump trucks) (Gement-Transportation)
 (Motortrucks)



KARTVELISHVILI, G.M., inzhener.

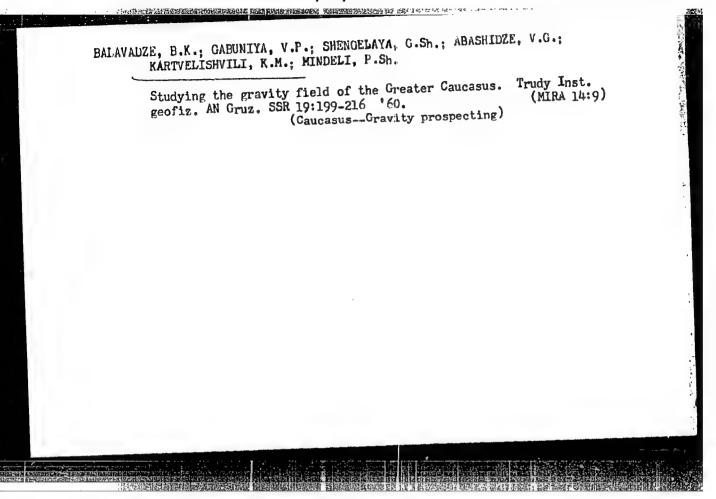
New socialist city of Rustavi. Stroi.pros. 35 no.4:5:10 Ap '57.

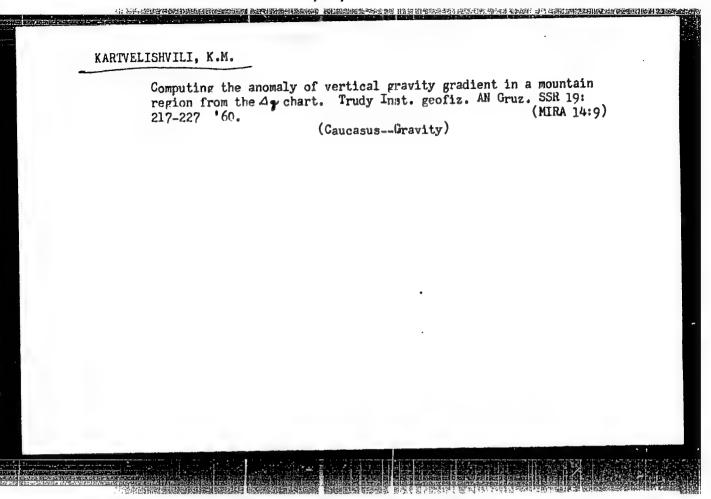
1. Glavnyy inzhener Zakavkazmetallurgstroya.
(Rustavi...City planning)
(Rustavi...Apartment houses)

Recalculating gravity anomalies into anomalies of the vertical gravity gradient. Izv. AN SSSR Ser. geofiz. no.8:1171-1177 (MIRA 17:8)

Ag *64

1. Institut geofiziki AN GruzSSR.





KARTVELISHVILI, K. M.

Dissertation defended for the degree of <u>Candidate of Physicomathematical</u>
<u>Sciences</u> at the Institute of Earth Physics imeni 0. Yu. Shmidt in 1962:

。 在1900年代的1900年代的1900年代的1900年代,

"Several Problems of Reduction of the Force of Gravity in Mountainous Regions."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

KARTVELISHVILI, K.M.

一方片记。我们们我的在他们的我们的我们就是我们的人们是一个一个一个一个一个

Gravitational effect of bodies of regular geometric shape. Trudy Inst. geofiz. AN Gruz. SSR 21:213-219 '63.

Accuracy in computing anomalies and reductions in gravity in a mountainous region. Ibid.:221-236 (MIRA 18:12)

L 27295-65 EWT(1)/EWG(v) Po-4/Pq-4/Pe-5/Pg-4 GW S/0251/64/036/003/0561/0564
ACCESSION NR: AP5003272

AUTHORS: Balayadze, B. K.; Kartvelishvili, K. Z.

TITLE: Observations on tidal variations of the force of gravity in Thilisi

SOURCE: AN GruzSER. Soobshcheniya, v. 36, no. 3, 1964, 561-564

TOPIC TAGS: geophysics, geophysical research, tide, gravitational force/ Askaniya Ge 11 No. 144 gravimeter

ABSTRACT: A gravimetric station was established in Tbilisi in 1960 for the purpose of observing lend tide variations of the force of gravity. Three series of observations were organized: the first from February 8, 1960, to March 10, 1960; the second from May 23, 1960, to August 17, 1960; and the third from January 31, 1961, to April 1, 1961. The test measurements were conducted in an underground chamber in carefully controlled temperatures and humidity; an Askaniya gravimeter, Gs-11 No. 144, was used in the measurements. A cautious procedure of instrument control and calibration was observed for each test series. The observations were carried out by both the first and second methods of V. P. Pertsev (Garmonicheskiy analiz prilivov. Izv. AN SSSR, ser. geofiz., No. 8, 1958, and Garmonicheskiy analiz 50-dnevnykh rysdov nablyudeniy prilivnykh izmeneniy sily tyaziesti. "Izucheniya zemnykh

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Geophysics, AN Gruzssk)	ENCL: 00	SUB CODE: ES
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L 52220-65 EWT(1)/EWG(r) Pc-4/Pc-5/Pq-4/Py-4 GN

ACCESSION NR: AP5017165 UR/0587/65/000/002/0075/0079

525.6 3-4

AUTHORS: Balavadze, B. K.; Karmaleyova, R. M.; Kartvelishvili, K. Z.; Latynina, G.
L. K.

TITLE: Observations on tidal deformations of the earth by means of a horizontal extensometer in Thilisi

SOURCE: AN SSSR. Izvestiya. Fisika memli, no. 2, 1965, 75-79

TOPIC TAGS: tide, earth figure, deformation meter, quartz

ABSTRACT: Two large quartz extensometers were set up in the underground observatory of the Institut geofiziki Gruzinskoy AN (Geophysical Institute of the Georgian Academy of Soiences) in Thilisi in 1962. The tunnel (100 m long) in which the instruments were placed is in tuffaceous sandstone and mudatone, and is lined with a layer of concrete 30-40 cm thick. One extensimator; with a 41-m base, is set up 40 m from the unnel entrance. Its sensitivity is 0.22-10-8 mm, and it is oriented N 60° E. The other instrument, with a 14.5-m bane, is set up 70 m from the entrance. Its sensitivity is 0.7-10-8 mm, and it is oriented N 60° E. The other instrument, with a 14.5-m bane, is set up 70 m from the entrance. Its sensitivity is 0.7-10-8 mm, and it is oriented N 50 W. The instruments record the displacement of two fixed points on the earth's surface, the distance between Card 1/2

the points being the instrumental base. Connection with the ground is made through rigid rods (tubes of transparent quartz glass, 3 m: long, 40 mm in diameter, and with walls 2-5 mm thick). A continuous record was obtained from only the N 30° W instrument because of moisture damage to the other. For June-September 1965 this instrument showed a tidal displacement amounting to 3.5:10-8 mm. The durations of the fluctuations were subjected to harmonic analysis to isolate the tidal component. The ratio of elastic constants (Love number to Shida number) was found to be 6.6. Assuming the first to be 0.5-0.6, the second would then be 0.08-0.09, a value that

is in good agreement with other authors. The value of the Love number, computed separately, is found to be lower than that given by gravimetric data and inclinometer measurements. It is possible that the variation may be due to local peculiarities in deformation. Orig. art. has: 2 figures, 2 tables, and 8 formulas.

ASSOCIATION: Akademiya nauk SSSR, Institut fisiki Zemli (Academy of Sciences SSSR, Institute of Physics of the Earth)

SUBMITTED: 04May64

ENCL: CO

SUB CODE: ES. ME

NO REF SOV: 003

OTHER : 002

Card 2/2

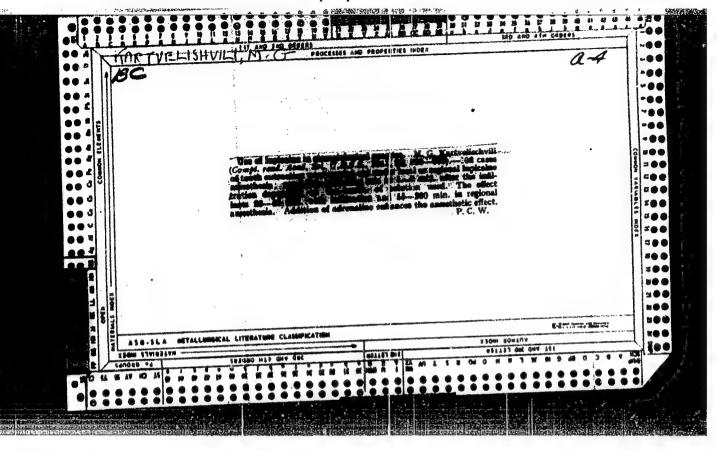
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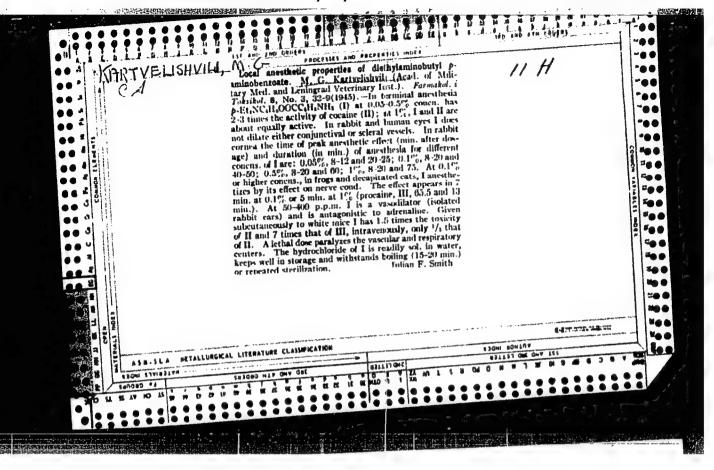
BALAVADZE, B.K.; KARMALEYEVA, R.M.; KARTVELISHVILI, K.Z.; LATYNINA, L.K.

Use of a horizontal extensometer in observing tidal deformations of the earth at Tbilisi. Izv. AN SSSR. Fiz. zem. no.2:75-79 165.

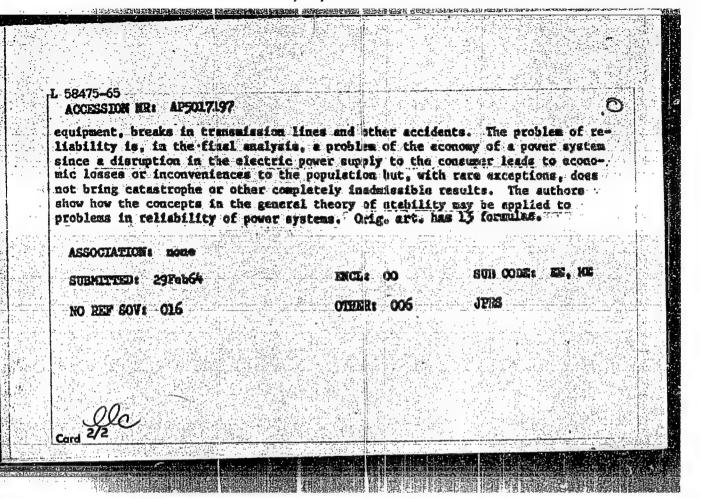
(MIRA 18:6)

1. Institut fiziki Zemli AN SASR.





UR/0179/64/000/005/0131/0136 L 58475-65 ACCESSION NR: APSO17197 AUTHOR: Aronovich, G. V. (Gor'kly, Koscow); Kartvelishvili, R. A. (Gor'kly, Moscow) TITLE: Application of the theory of stability to problems in static and dynamic stability of power syntees SOURCE: AN SSSR. Inventiya. Mokhanika i mashimostroyeniye, mc. 5, 1964, 131-136 TOPIC TAGS: electric power production, solid mechanics Abstract: The problem of reliability of a power system is presently considered on the one hand as a problem in determining necessary power and energy reserves and on the other -- an a problem in stability of the stationary conditions of the system, the results of solutions of these two problems being used almost independently of each other. Stability problems are formulated as determination of the stability or instability of the system with given parameters in relationship to a given disturbance, without determining the probability characteristics of the loss of stability. For electric power consumers, there is no fundamental difference between loss of stability and other emergencies, and these disruptions in stability should be taken into account in estimating the total probability of continuity in electric supply in the same way as breakdowns in station Card 1/2



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Izv. AN SSSR Mekh. 1 mashinostr. no.6:172-174 N-D '64.

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"Some questions in the unsettled work routine of hydroelectric power stations."

Dissertation for degree of Candidate of Technical Sciences, Baku Power-Engineering Institute, AS AZSSR

Subject: Hydropower engineering

Gidrotekhnicheskoye, stroitel'stvo, 12, 1946.

Hydraulic impact in reaction turbine plants. Isv.AH Arm. SSR. Ser. PMST nauk 1 no.2:125-139 '48. (MLRA 9:8) IGidroelektricheskaya laboratoriya Akademii nauk Armyanskoy SSR. (Hydraulic turbines)

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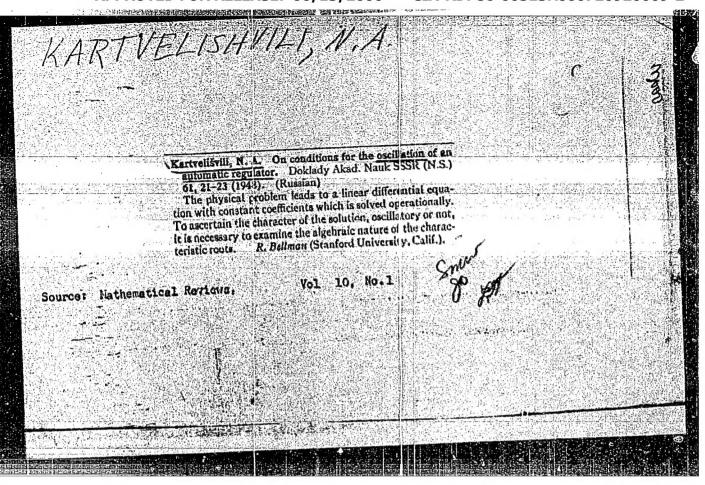
Analysis of water-level fluctuations in hydroelectric power installations during load pickup. Izv.AN Arm. SSR. Ser. FMET 1 no.7: [MIRA 9:8] 573-587 48.

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Law of regulating hydraulic turbines. Izv.AN Arm.SSR.Ser.FMET 1 no.7:589-602 148. (MLRA 9:8)

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(Hydraulic turbines)



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PRINCIPLE IN A. A.	USSR/Electronics Regulators, Electronic Methematics, Applied "Specifications of the Quality of Automation," N. A. Eartvelishvili, 5 pp tion," N. A. Mauk SSSR" Vol IXI, No 1